

WHAT IS CLAIMED IS:

1. A material comprising:
opposed flexible layers;
a seam connecting a portion of the opposed
flexible layers to form an interspatial
pocket between the opposed flexible layers;
and
a resistant infrastructure having a higher
penetration resistance than the opposed
flexible layers disposed in the interspatial
pocket between the opposed flexible layers.
2. The material of claim 1 wherein the resistant
infrastructure includes a plurality of spaced
relatively rigid guard plates.
3. The material of claim 1 wherein the opposed
flexible layers are formed of an elastomeric material.
4. The material of claim 1 wherein the opposed
flexible layers are formed of a polyurethane material.
5. The material of claim 2 wherein the guard plates
are formed of a curable resin or epoxy.
6. The material of claim 2 wherein the guard plates
include a layer of glass beads or particles.

7. The material of claim 2 wherein the plurality of spaced guard plates are separated by void space between adjacent guard plates.

5 8. The material of claim 2 wherein the plurality of spaced guard plates are formed on a substrate.

10 9. The material of claim 8 wherein the substrate is a substrate layer interposed in the interspatial pocket between the opposed flexible layers.

15 10. The material of claim 8 wherein the substrate is one of the opposed flexible layers having the guard plates formed thereon.

20 11. The material of claim 1 including a plurality of penetration resistant infrastructures interposed in the interspatial pocket between the opposed flexible layers.

25 12. The material of claim 11 wherein the plurality of penetration resistant infrastructures include multiple guard plate arrays formed on a substrate.

13. The material of claim 1 wherein the resistant infrastructure includes a flexible penetration resistant fabric.

14. The material of claim 13 wherein the flexible penetration resistant fabric is one of a kevlar or spectra material.

5 15. A glove comprising:

a polymer glove body including a reinforced body portion including opposed polymer layers bounded by a seam to form an interspatial pocket therebetween and including a
10 resistant infrastructure interposed in the interspatial pocket between the opposed polymer layers.

16. The glove of claim 15 wherein the resistant
15 infrastructure includes a plurality of spaced rigid guard plates interposed in the interspatial pocket between the opposed polymer layers.

17. The glove of claim 16 wherein the rigid guard
20 plates are formed of a curable resin or epoxy.

18. The glove of claim 15 wherein the opposed polymer layers are formed of polyurethane material.

25 19. The glove of claim 15 wherein the polymer glove body includes a non-reinforced portion and the non-reinforced portion includes laminated polymer layers

20. The glove of claim 16 wherein the plurality of rigid guard plates are formed on a substrate.

21. The glove of claim 20 wherein the substrate is one
5 of the opposed polymer layers.

22. The glove of claim 20 wherein the substrate is a
substrate layer interposed in the interspatial pocket
between the opposed polymer layers.
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23. The glove of claim 15 including a plurality of
penetration resistant infrastructures in the
interspatial pocket between the opposed polymer layers
having a higher penetration resistance than the opposed
polymer layers.
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24. A material comprising:
a plurality of spaced guard plates formed on a
substrate having a void space between
adjacent guard plates and the plurality of
20 spaced guard plates formed of a hard curable
material; and
a glass particle layer formed on the hard curable
material.
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25. A method of fabricating a material comprising
steps of:
depositing a curable hard layer on a substrate;

coating a first surface of the curable hard layer
with glass particles or beads; and
directing a radiation source at a second surface
of the curable hard layer to cure the
5 curable hard layer having the glass
particles or beads thereon.

26. A method of fabricating a glove comprising steps
of:
10 fabricating a flexible penetration resistant
infrastructure;
interposing the penetration resistant
infrastructure between opposed polymer
layers; and
15 forming a glove body including an interspatial
pocket between the opposed polymer layers
having the penetration resistant
infrastructure disposed therein.

20 27. The method of claim 26 wherein the step of forming
the glove body includes the step of:
cutting the polymer layers of glove body and heat
sealing an edge portion of the polymer
layers to form the glove body having a body
25 cavity.

28. The method of claim 27 wherein the step of forming
the glove body includes the step;

laminating portions of the opposed polymer layers
to form the interspatial pocket
therebetween.

- 5 29. The method of claim 26 wherein the penetration
resistant infrastructure includes a guard plate array
and further comprising the steps of:

printing an array of curable guard plates on a
substrate; and

- 10 curing the printed array of guard plates.